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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,818	02/02/2001	Martin Lee	371922003400	8237

7590 10/26/2004  
Finnegan, Henderson, Farabow, Garrett  
& Dunner L.L.P.  
1300 I Street, N.W.  
Washington, DC 20005-3315

EXAMINER
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NGUYEN, HUNG

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 10/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/773,818

Applicant(s)

LEE ET AL.

Examiner

Hung Henry V Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 37-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-20,23 and 31-37 is/are rejected.
- 7) ☒ Claim(s) 3-5,21,22 and 24-30 is/are objected to.
- 8) ☒ Claim(s) 1-48 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 6-8, 14-16, 18-20, 31-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Phillips (U.S.Pat. 4,676,649).

With respect to claims 1, and 31-37, Phillips discloses a stage device comprising all basic features of the instant claims such as: a base (16); a stage (11) positioned adjacent to the base and movable relative to the base; a bearing assembly (18) comprising at least one fluid/gas bearing interposed between the base and the stage for supporting the stage on the base and movable relative to the base and the stage (see figure 1).

As to claim 2, Phillips further teaches the stage device having a motor (54,98) for moving the stage relative to the base in at least one degree of freedom over a stroke of the stage (see col.8, lines 59-63).

As to claim 6, the stage motor is operable to move the stage relative to the base in five additional degrees of freedom such as X,Y,Z, , yaw,  $\gamma$ ,  $\delta$ , directions (see col.14, lines 60 thru col.15, line 30).

As to claims 7-8, Phillips further teaches the stage motor being planar motor and or linear motor (98,100).

Art Unit: 2851

As to claims 14-16, 18-20, Phillips teaches that the fluid bearing is a preloaded and is provided by a gravitational weight of the stage, wherein the bearing assembly incorporates a vacuum preloading mechanism and comprises two bearing members, each including a port and a cavity, the port communicating with the cavity and connected to a vacuum pump such that the cavity can be evacuated through the port (see figure 11, col.12, lines 6-43; and claims 3-5 of Phillips).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-13, 17, and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips (U.S.Pat. 4,676,649) in view of Sogard (U.S.Pat. 6,402,380).

With respect to claims 9, 17 and 23, Phillips discloses a stage device comprising substantially all of the limitations of the instant claims as discussed but lacks to show a “retaining member” or ‘at least one spring attached between the stage and the base” and the bearing assembly being operable in a vacuum. Sogard teaches a stage device having a retaining member/bearing seal (40) comprising an adjustable spring (52) attached between the first and second bases(42, 43) and the bearing assembly is operable in a vacuum (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Phillips and Sogard to obtain the teachings as specified in claims 9,

Art Unit: 2851

17, and 23. It would have been obvious to a skilled artisan to employ a retaining member/or spring as taught by Sogard into the bearing assembly of Phillips for at least the purpose of movement of the gas bearing relative to the bearing support. Further, it would have been obvious to one having ordinary skill in the art to have the bearing assembly of Phillips to be operable in vacuum as suggested by Sogard to prevent contamination of the bearing assembly.

***Allowable Subject Matter***

5. Claims 3-5, 21-22, 24-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments filed August 17, 2004 have been carefully reviewed but they are not found persuasive. The applicant is reminded that the claimed subject matter to examination will be given their broadest reasonable interpretation consistent with the specification, and limitations appearing in the specification are not be read into the claims. In re Yamamoto, 740 F. 2d 1569, 1571, 222 USPO 934, 936 (Fed.Cir. 1984). With this in mind, the discussion herein will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitation that is not in the claims or any argument that is irrelevant to or does not relate to any specific claimed language will not be warranted.

Applicant argued that the Phillips reference does not disclose the gas bearings 18 being "movable relative" to the X-Y- $\theta$  stage 11. The Examiner respectfully disagrees with the

Art Unit: 2851

applicant. In the Examiner's opinion, the Phillips reference meets the limitation as broadly claimed because the intermediate stage 186 is movable along the Y-direction by the bearings means with respect to the base (16) (see col.21. lines 28-29) and as clearly shown in figures 12A and 12B, the swivelable gas 192 is "rotatable" relative intermediate stage 186. Therefore, in the broadest sense, the bearings assembly (192) can be regarded as being "movable relative to the base and the stage".

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

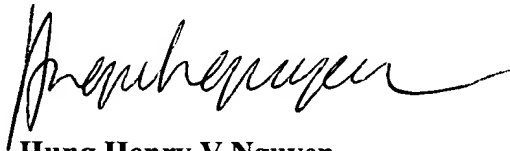
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**8.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

Art Unit: 2851

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Hung Henry V Nguyen**  
**Primary Examiner**  
**Art Unit 2851**

hvn  
10/21/04